

ABSTRACT

A rechargeable electrochemical cell is provided having a pressure-responsive apparatus for determining a charge termination point. In particular, a reversible pressure-responsive switch may be disposed in a cap at the open end of a rechargeable metal hydride cell. The reversible pressure-responsive switch may also contain a vent system for releasing the cell internal pressure. Alternatively, a rechargeable cell may include a strain gauge disposed in its outer surface whose resistance changes as the outer surface of the battery expands due to internal pressure accumulation during charging. Additionally, a rechargeable cell is used combination with a charging source that can supply constant voltage, constant current, alternating current, or voltage that varies between a minimum threshold and a maximum threshold.